

ABSTRACT:

Known phase detectors have feedbackloops and do not function properly under severe conditions. By providing said phase detectors with difference establishers (1) for establishing differences between input signals and with selectors (2) for selecting one of said differences to be used as an output signal for phase locking purposes, the phase detectors
5 operate better under more severe conditions, with any dead-zone having disappeared. Said selector (2) is a feedbackless selector, then a loop delay no longer exists, the linear range will not get any smaller for higher frequencies, the output jitter will not increase, for sampled input signals. Said selector (2) comprises latches (21,22) and a multiplexer (23). A converter (3) converts input signals into compensated input signals, via a buffer circuit (31,33) coupled
10 to a replica circuit (32,34) per input signal, to provide input signals having substantially equal amplitudes and being compensated with process errors and temperature variations. The difference establisher (1) is based upon moduli or squares.

Fig. 1